



Central Valley Regional Water Quality Control Board

22 November 2021

Cicely Muldoon, Superintendent
U.S. DOI/National Park Service
P.O. Box 577
Yosemite National Park, CA 95389

CERTIFIED MAIL
7018 1830 0001 2774 7817

NOTICE OF APPLICABILITY (NOA); STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE, YOSEMITE NATIONAL PARK; WHITE WOLF WASTEWATER TREATMENT FACILITY; TUOLUMNE COUNTY

On 30 March 2021, the United States Department of Interior, National Park Service, Yosemite National Park (National Park Service or Discharger) submitted a Report of Waste Discharge (RWD) for the White Wolf Wastewater Treatment Facility (WWTF) in Tuolumne County. The RWD requests the WWTF receive coverage under State Water Resources Control Board (State Water Board) Water Quality Order 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). The RWD includes a technical report prepared by Mr. Jonathan Pederson, a California-registered civil engineer (RCE 71724), with DJ&A, P.C. Additional information was submitted on 22 and 26 April 2021, 6 May 2021, 21 and 22 July 2021, and 19 November 2021. Based on the information provided, the discharge from your WWTF is eligible for coverage under the General Order.

This letter serves as formal notice that the General Order is applicable to your system and the wastewater discharge described below. You are hereby assigned enrollee number **2014-0153-DWQ-R5360**. The WWTF's existing coverage under State Water Board's Water Quality Order No. 97-10-DWQ (enrollee number 97-10-DWQ-R5074) is hereby rescinded.

You should familiarize yourself with the entire General Order and its attachments enclosed with this letter, which describe mandatory discharge and monitoring requirements. Sampling, monitoring, and reporting requirements applicable to your treatment and disposal methods must be completed in accordance with the appropriate treatment system sections of the General Order and the attached Monitoring and

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

Reporting Program (MRP) No. **2014-0153-DWQ-R5360**. This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

DISCHARGE DESCRIPTION

The White Wolf Wastewater Treatment Facility is located at the White Wolf Lodge and Campground in Yosemite National Park (Section 10, Township 1 South, Range 21 East, Mount Diablo Base and Meridian) on Assessor's Parcel Numbers 069-120-001-000 and 069-120-005-000. Attachment A of this NOA includes a Site Location Map. Attachment B of this NOA includes a Site Plan Map. Attachment C of this NOA includes a Monitoring Well/Piezometer Site Map.

The White Wolf facilities were constructed primarily in the 1970s. The existing wastewater treatment system includes the collection system, a 1.7-acre stabilization pond, chlorine disinfection, and discharge to a 2.5-acre spray field. The WWTF operates during the summer months.

The proposed leach field will be a mound system located in a currently forested area between White Wolf Lodge and the employee housing area. The proposed system will also be winterized at the end of each season. Construction is anticipated during summer of 2021, with the Facility opening for the summer 2022 season.

FACILITY SPECIFIC REQUIREMENTS AND EFFLUENT LIMITATIONS

The Discharger will maintain exclusive control over the discharge and shall comply with the terms and conditions of this NOA, General Order 2014-0153-DWQ, all attachments, and MRP No. 2014-0153-DWQ-R5360.

In accordance with Section B.1.a of the General Order, treated wastewater discharged to the Facility's leach field **shall not exceed 7,000 gpd as a monthly average**. Wastewater shall not be applied to the leach field unless there is at least a 2.5 foot separation between the top elevation of the groundwater table and bottom of the leach field (i.e., when groundwater elevation is at or less than 7,869.5 feet above sea level at the nearest up-gradient monitoring well or a future monitoring well approved by Central Valley Water Board staff).

The enclosed MRP requires the installation of a groundwater monitoring well network. Prior to using the subsurface disposal system, the Discharger shall install a groundwater monitoring well network around its subsurface disposal system to monitor changes in groundwater quality associated with its discharge. Prior to the first use of wastewater disposal system, groundwater quality samples and groundwater elevations shall be taken/measured from all wells.

The General Order states in Section B.1 that the Discharger shall comply with the setbacks as described in Table 3 of the General Order. This table summarizes different setback requirements for wastewater treatment system equipment, activities, land application areas, and storage and/or treatment ponds from sensitive receptors and

property lines where applicable. The Discharger shall comply with the applicable setback requirements, as summarized in Table 1 below:

Table 1 – Site-Specific Applicable Setback Requirements

Equipment or Activity	Domestic Well (feet)	Flowing Stream (feet)	Ephemeral Stream Drainage (feet)
Septic Tank, Treatment Unit, Treatment System, and Collection System	150	50	50
Leach Field	100	100	50

The Discharger shall comply with all applicable sections of the General Order, including:

1. Septic System Requirements (Section B.2);
2. Subsurface Disposal Surface Requirements (Section B.6);
3. Sludge/Solids/Biosolids Disposal Requirements (Section B.8); and
4. Groundwater and Surface Water Limitations (Section C.1).

Provision E.1 of the General Order requires dischargers enrolled under the General Order to prepare and implement the following reports within **90 days** of the issuance of the NOA (**by 21 February 2022**):

- Spill Prevention and Emergency Response Plan (Provision E.1.a.).
- Sampling and Analysis Plan (Provision E.1.b).

A copy of the Spill Prevention and Emergency Response Plan and the Sampling and Analysis Plan shall be maintained at the treatment facility and shall be presented to the Regional Water Board staff upon request.

Failure to comply with the requirements in this NOA, General Order 2014-0153-DWQ, with all attachments, and MRP No. **2014-0153-DWQ-R5360** could result in an enforcement action as authorized by provisions of the California Water Code. Discharge of wastes other than those described in this NOA is prohibited. If the method of waste disposal changes from that described in this NOA, you must submit a new Report of Waste Discharge describing the new operation. If wastewater flows to the Facility substantially increase and monthly average flows approach or exceed 7,000 gpd, the Central Valley Water Board staff must be contacted to determine if further analysis is required.

As stated in Section E.2.w. of the General Order, in the event of any change in control or ownership of the Facility or wastewater disposal areas, the Discharger must notify the succeeding owner or operator of the existence of this General Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board Executive Officer.

The required annual fee specified in the annual billing from the State Water Board shall be paid until this NOA is officially terminated. You must notify this office in writing if the discharge regulated by the General Order ceases, so that we may terminate coverage and avoid unnecessary billing.

On 31 May 2018, the Central Valley Water Board adopted Basin Plan amendments incorporating new strategies for addressing ongoing salt and nitrate accumulation in the Central Valley as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (**CV-SALTS**) initiative. Further details of these strategies are discussed in the enclosed memorandum. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of this NOA to ensure the goals of the Salt and Nitrate Control Program are met.

All monitoring reports and other correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyfresno@waterboards.ca.gov. Documents that are 50MB or larger should be transferred to a disk and mailed to the Central Valley Water Board office at 1685 E Street, Fresno, CA 93706. To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15,
Place ID: 274505,
Facility Name: White Wolf WWTF,
Order: 2014-0153-DWQ-R5360.

All documents, including responses to inspections and written notifications, submitted to comply with this NOA shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention to Russell Walls. Mr. Walls can be reached at (559) 488-4392 or Russell.Walls@waterboards.ca.gov. Questions regarding the permitting aspects of the General Order and notification for termination of coverage under the General Order, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention Jeff Robins. Jeff Robins can be reached at (559) 445-5976 or by email at Jeff.Robins@waterboards.ca.gov.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Resources Control Board by 5:00 p.m. on the next business day. [Copies of the laws and regulations applicable to filing petitions](#) may be found on the internet at (https://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

In order to conserve paper and reduce mailing costs, a paper copy of General Order WQO 2014-0153-DWQ has been sent only to the Discharger. Others are advised that the [General Order](#) is available on the State Water Board's website (http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0153_dwq.pdf).

If you have any questions regarding this matter, please contact Jeff Robins by phone at (559) 445-5976 or by email at Jeff.Robins@waterboards.ca.gov.

Original Signed by Clay L. Rodgers for:
Patrick Pulupa
Executive Officer

Attachments:

- Attachment A – Site Location
- Attachment B – Site Plan Map
- Attachment C – Monitoring Well/Piezometer Site Map

Enclosures:

- Monitoring and Reporting Program 2014-0153-DWQ-R5360
- Staff Review Memorandum for White Wolf WWTF
- State Water Resources Control Board Order WQ 2014-0153-DWQ (Discharger only)

(see next page for cc's):

cc's:

- David Lancaster, David Lancaster, State Water Resources Control Board, OCC, Sacramento (via email)
- Laurel Warddrip, State Water Resources Control Board, DWQ, Sacramento (via email)
- Russell Walls, Central Valley Water Board, Fresno (via email)
- Adam Forbes, State Water Resources Control Board, DDW, District 11 Merced (via email)
- Tuolumne County Public Works Dept., Sonora, CA
- Tuolumne County Environmental Health Division, Sonora, CA
- Cicely Muldoon, Yosemite National Park Service (via email)
- Rick Hall, Yosemite National Park Service (via email)
- Nicole Belle Isle, Yosemite National Park Service (via email)
- Jim Allen, Yosemite National Park Service (via email)
- Jonathan Pederson, DJ&A, P.C.(via email)
- Michael Whelehon DJ&A, P.C. (via email)



ATTACHMENT A – SITE LOCATION MAP
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5360
FOR
UNITED STATES DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE
YOSEMITE NATIONAL PARK WHITE WOLF WWTF
TUOLUMNE COUNTY

Drawing Reference: Google Earth



ATTACHMENT B – SITE PLAN MAP

NOTICE OF APPLICABILITY 2014-0153-DWQ-R5360

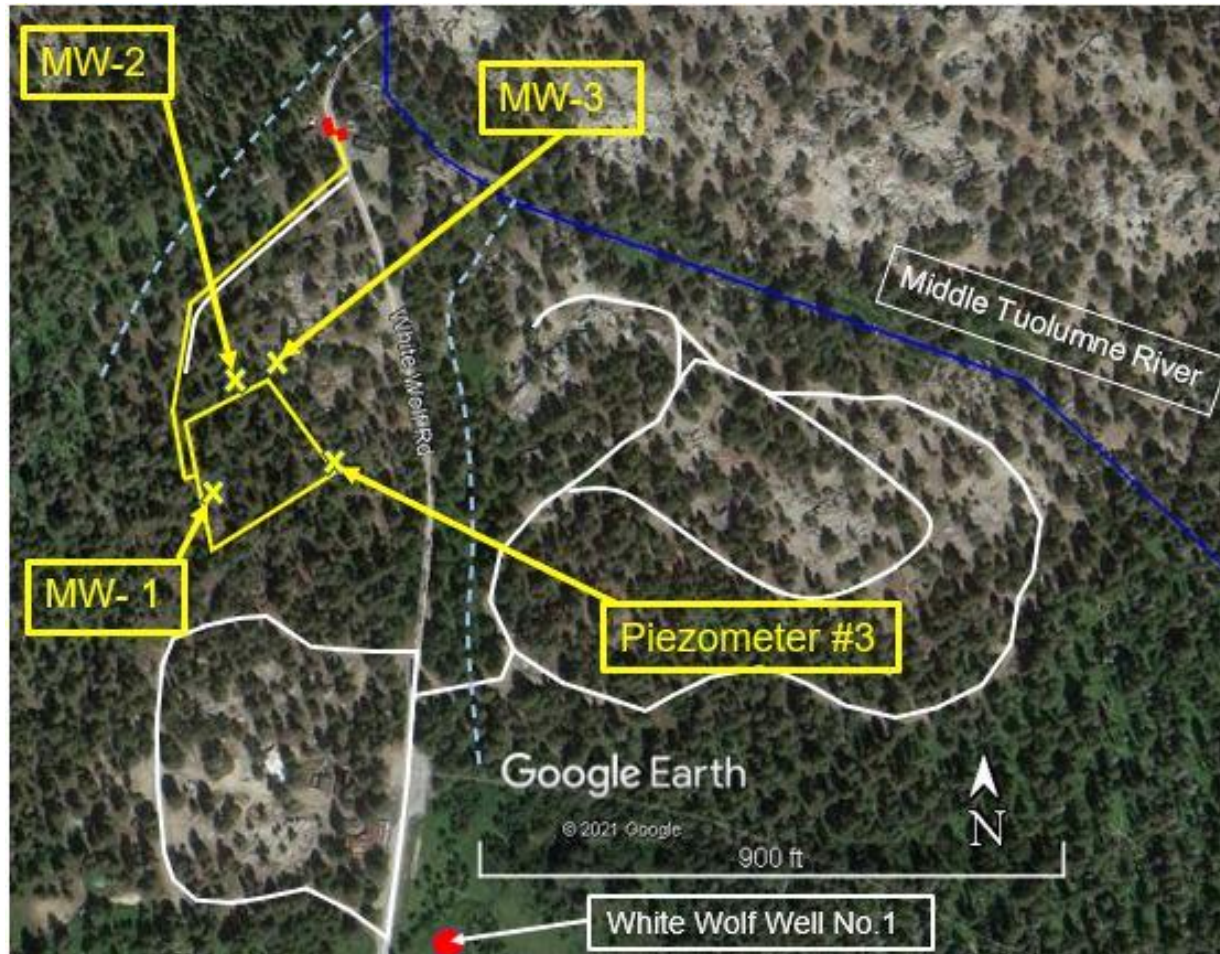
FOR

UNITED STATES DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE

YOSEMITE NATIONAL PARK WHITE WOLF WWTF

TUOLUMNE COUNTY

Drawing Reference: Google Earth



ATTACHMENT C – MONITORING WELL/PIEZOMETER SITE MAP

NOTICE OF APPLICABILITY 2014-0153-DWQ-R5360

FOR

UNITED STATES DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE

YOSEMITE NATIONAL PARK WHITE WOLF WWTF

TUOLUMNE COUNTY

Drawing Reference: Google Earth

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

**MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5360
FOR
UNITED STATES DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE,
YOSEMITE NATIONAL PARK
WHITE WOLF WASTEWATER TREATMENT FACILITY
TUOLUMNE COUNTY**

This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater treatment system. This MRP is issued pursuant to Water Code section 13267. The United States Department of the Interior, National Park Service, Yosemite National Park (National Park Service or Discharger) shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) or Executive Officer.

Section 13267 of the California Water Code states, in part:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.”

Section 13268 of the California Water Code states, in part:

“(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying and information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”

The Discharger owns and operates the White Wolf Wastewater Treatment Facility (WWTF or Facility) that is subject to Notice of Applicability (NOA)

2014-0153-DWQ-R5360, which enrolls the WWTF under the State Water Resources Control Board Order WQ 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). The reports required in this MRP are necessary to ensure that the Discharger complies with the NOA and General Order. Pursuant to Water Code section 13267, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Central Valley Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a State Water Resources Control Board, Environmental Laboratory Accreditation Program (ELAP) certified laboratory, or:

1. The user is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are maintained and available for at least three years.

SEPTIC TANK MONITORING

Septic tank effluent samples shall be taken from a location that represents the effluent from the dosing tank to the leach field. Septic tank effluent monitoring is only required when wastewater is discharged to the leach field system. At a minimum, effluent monitoring shall include the following:

Table 1. Septic Tank Effluent Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gpd	Metered or Estimated (See 1 below)	Continuous (See 2 below)	Semi-Annually
EC	µmhos/cm	Grab	Monthly	Semi-Annually
Total Nitrogen (as N)	mg/L	Grab	Annually	Annually

1. The flow rate may be metered or estimated based on potable water supply meter readings, pump run times, or other approved method.
2. For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation.

All septic tanks shall be inspected and/or pumped at least as frequently as described below in Table 2. Inspections of sludge and scum depth are not required if the tanks are pumped at least annually.

Table 2. Septic Tank Monitoring Requirements

Parameter	Units	Sample Type	Inspection/Reporting Frequency
Sludge depth and scum thickness in each compartment of each tank.	Feet	Staff Gauge	Annually
Distance between the bottom of the scum layer and bottom of the outlet device.	Inches	Staff Gauge	Annually
Distance between the top of the sludge layer and the bottom of the outlet device.	Inches	Staff Gauge	Annually
Effluent filter condition (if equipped, clean as needed)	N/A (See 1 below)	N/A (See 1 below)	Annually (See 2 below)

1. N/A denotes not applicable
2. Provide a qualitative description of the filter condition and normal maintenance.

Septic tanks shall be pumped when any of the following conditions exists:

1. The combined thickness of the sludge and scum exceeds one-third of the tank depth of the first compartment.
2. The scum layer is within 3 inches of the outlet device.
3. The sludge layer is within 8 inches of the outlet device.

If a septic tank is pumped during the year, the pumping report shall be submitted with the annual report. All pumping reports shall be submitted with the next regularly scheduled monitoring report. At a minimum, the record shall include the date, nature of service, service company name, and service company license number.

SUBSURFACE DISPOSAL AREA MONITORING

In general, monitoring shall be sufficient to determine if wastewater is evenly applied, the disposal area is not saturated, burrowing animals and/or deep-rooted plants are not present, and odors are not present. Inspection of dosing pump controllers, automatic distribution valves, etc. is required to maintain optimum treatment in the disposal area (and any sand or media filter, if present). Monitoring of the leach field systems shall, at a minimum, include the monitoring specified in Table 3 below. Monitoring in Table 3 is

only required during the quarters when discharge of wastewater to the leach field system occurs.

Table 3. Subsurface Disposal Area Monitoring

Constituent	Inspection Frequency	Reporting Frequency
Pump Controllers, Automatic Valves, Etc. (See 1 below)	Monthly	Semi-Annually
Nuisance Odor Conditions	Monthly	Semi-Annually
Saturated Soil Conditions (See 2 below)	Monthly	Semi-Annually
Plant Growth (See 3 below)	Monthly	Semi-Annually
Vectors or Animal Burrowing (See 4 below)	Monthly	Semi-Annually

1. All pump controllers and automatic distribution valves shall be inspected for proper operation as recommended by the manufacturer.
2. Inspect a disposal area for saturated conditions.
3. Shallow-rooted plants are generally desirable, deep-rooted plants such as trees shall be removed as necessary.
4. Evidence of animals burrowing shall be immediately investigated, and burrowing animal populations controlled as necessary.

GROUNDWATER MONITORING

The Discharger shall install and monitor a groundwater monitoring well network at the WWTF. The groundwater monitoring network shall be sufficient to characterize up-gradient groundwater conditions and evaluate the WWTF discharge on underlying groundwater.

By 21 February 2022, the Discharger shall submit a **Monitoring Well Installation Workplan** for Executive Officer approval. The Workplan shall be prepared in accordance with, and include the items listed in, the first section of Attachment A of this MRP (*Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports*). At a minimum, the monitoring well network shall include one monitoring well up-gradient of the leach field to establish background groundwater quality and at least two down-gradient monitoring wells. The Workplan can propose to use existing piezometers/monitoring wells as part of the monitoring well network provided the Discharger can demonstrate that the existing wells are constructed and located in a manner that can adequately evaluate the Facility's impact on underlying groundwater. The monitoring wells shall comply with appropriate well standards as described in California Well Standards Bulletin 74-90 (June 1991) and Water Well Standards, State of California Bulletin 74-81 (December 1981), and any more stringent standards adopted by local agencies pursuant to Water Code section 13801.

Within 12 months of receiving Executive Officer approval of the Monitoring Well Installation Workplan, the Discharger shall submit a **Groundwater Monitoring Well Installation Report** for the new groundwater monitoring wells constructed to comply

with the well standards cited above. The report shall be prepared in accordance with, and include the items listed in, the second section of Attachment A of this MRP. The report shall describe the installation and development of all new monitoring wells and explain any deviation from the approved workplan.

Analysis of the data and groundwater flow directions shall be performed at least annually and shall be performed under the supervision of a California-licensed civil engineer or geologist. The Discharger may request a reduced monitoring and reporting schedule once adequate data has been collected to characterize the site.

Prior to sampling, groundwater elevations shall be measured, and the wells shall be purged of at least three well volumes and until pH and electrical conductivity have stabilized. No-purge, low-flow, or other sampling techniques are acceptable if they are described in an approved Sampling and Analysis Plan. Depth to groundwater shall be measured to the nearest 0.25 inches. Groundwater elevations shall be calculated. Samples shall be collected using approved USEPA methods.

Groundwater monitoring shall include, at a minimum, the monitoring specified in Table 4 below. Groundwater monitoring shall occur at least when discharges from the WWTF occur.

Table 4. Groundwater Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Groundwater Elevation (See 1. below)	0.25 inches	Calculated	Monthly	Annually
Depth to Groundwater (See 2 below)	0.25 inches	Measurement	Monthly	Annually
Total Coliform Organisms	MPN/100 mL	Grab	Quarterly	Annually
EC	µmhos/cm	Grab	Quarterly	Annually
Nitrate (as Nitrogen)	mg/L	Grab	Annually	Annually

1. Groundwater elevation shall be based on depth to water using a surveyed measuring point elevation on the monitoring well/piezometer and a surveyed reference elevation.
2. If groundwater depth is 2.5 feet or less and the Facility is currently receiving wastewater flow, the Discharger shall contact the Central Valley Water Board and Tuolumne County and propose how it intends to comply with the minimum groundwater separation distance of 2.5 feet (e.g., tank and haul the effluent to a different wastewater treatment facility).

SLUDGE/BIOSOLIDS MONITORING

The Discharger shall report the handling and disposal of all solids (e.g. screenings, grit, sludge, biosolids, etc.) generated at the wastewater treatment facility. Records shall include the name/contact information for the hauling company, the type and amount of

waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernable. The data shall be summarized to clearly illustrate compliance with the General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyfresno@waterboards.ca.gov. Documents that are 50MB or larger should be transferred to a disk and mailed to the appropriate Regional Water Board office, in this case 1685 E Street, Fresno, CA 93706.

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15,
Place ID: 274505,
Facility Name: Yosemite National Park White Wolf WWTF,
Order: 2014-0153-DWQ-R5360.

A. Semi-Annual Monitoring Reports

Semi-annual reports (e.g. January through June, and July through December) shall be submitted to the Regional Water Board by **1 August and 1 February**. The reports shall bear the certification and signature of the Discharger's authorized representative. At the minimum, the semi-annual reports shall include:

1. Results of all required monitoring.
2. A comparison of monitoring data to the discharge specifications, applicable effluent limits, disclosure of any violations of the NOA and/or General Order, and an explanation of any violation of those requirements. Data shall be presented in tabular format.
3. Copies of laboratory analytical report(s) and chain of custody form(s).

B. Annual Monitoring Reports

Annual Reports shall be submitted to the Regional Water Board **by March 1st following the monitoring year**. The Annual Report shall include the following:

1. Tabular and graphical summaries of all monitoring data collected during the year.
2. A groundwater monitoring report summarizing the groundwater data collected during the calendar year with an analysis of the data and groundwater flow directions performed under the supervision of a California licensed professional.
3. An evaluation of the performance of the WWTF, including discussion of the capacity issues, nuisance conditions, system problems, and a forecast of the flows anticipated in the next year. A flow rate evaluation, as described in the General Order (Provision E.2.c), shall also be submitted.
4. Copies of laboratory analytical report(s) and chain of custody form(s).
5. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order.
6. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
7. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.
8. A status update of the removal of the abandoned wastewater treatment facilities (piping, pond, spray distribution system, and chlorination facilities) and associated sewage sludge.

A letter transmitting the monitoring reports shall accompany each report. The letter shall report violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The Discharger shall begin implementing the above monitoring program **1 December 2021**.

Ordered by:

Original Signed by Clay L. Rodgers for:
PATRICK PALUPA, Executive Officer

11/22/2021
(Date)

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
CaCO ₃	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-hr Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots over a 24-hour period.
Daily	Every day except weekends or holidays.
Twice Weekly	Twice per week on non-consecutive days.
Weekly	Once per week.
Twice Monthly	Twice per month during non-consecutive weeks.
Monthly	Once per calendar month.
Quarterly	Once per calendar quarter.
Semiannually	Once every six calendar months (i.e., two times per year) during non-consecutive quarters.
Annually	Once per year.
mg/L	Milligrams per liter
mg/kg	Milligrams per kilogram
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
N/A	Denotes not applicable
ND	Non-detect, below the detection (reporting) limit of the test
NTU	Nephelometric Turbidity Units
UV	Ultraviolet
mJ/cm ²	Millijoules/cm ²
SU	Standard pH units

**ATTACHMENT A
MONITORING AND REPORTING PROGRAM 2014-0153-DWQ-R5360
REQUIREMENTS FOR
MONITORING WELL INSTALLATION WORKPLANS AND
MONITORING WELL INSTALLATION REPORTS**

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing, at a minimum, the information listed in Section 1, below. Wells may be installed after staff approves the workplan. Upon installation of the monitoring wells, the Discharger shall submit a well installation report which includes the information contained in Section 2 below. All workplans and reports must be prepared under the direction of, and signed by, a registered geologist or civil engineer licensed by the State of California.

SECTION 1 -Monitoring Well Installation Workplan and Groundwater Sampling and Analysis Plan

The monitoring well installation workplan shall contain the following minimum information:

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions
- Proposed monitoring well locations and rationale for well locations
- Topographic map showing facility location, roads, and surface water bodies
- Large-scaled site map showing all existing on-site wells, proposed wells, surface drainage courses, surface water bodies, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- Description of the on-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals (if appropriate) and logging methods

C. Monitoring Well Design (in narrative and/or graphic form):

- Diagram of proposed well construction details:
 - Borehole diameter
 - Casing and screen material, diameter, and centralizer spacing (if needed)

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

- Type of well caps (bottom cap either screw on or secured with stainless steel screws)
- Anticipated depth of well, length of well casing, and length and position of perforated interval
- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Anticipated screen slot size and filter pack

D. Well Development (not to be performed until at least 48 hours after sanitary seal placement):

- Method of development to be used (i.e., surge, bail, pump, etc.)
- Parameters to be monitored during development and record keeping technique
- Method of determining when development is complete
- Disposal of development water

E. Well Survey (precision of vertical survey data shall be at least 0.01 foot):

- Identify the Licensed Land Surveyor or Civil Engineer that will perform the survey
- Datum for survey measurements
- List well features to be surveyed (i.e. top of casing, horizontal and vertical coordinates, etc.

F. Schedule for Completion of Work

G. Appendix: Groundwater Sampling and Analysis Plan (SAP)

The Groundwater SAP shall be included as an appendix to the workplan, and shall be utilized as a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities.

Provide a detailed written description of standard operating procedures for the following:

- Equipment to be used during sampling
- Equipment decontamination procedures
- Water level measurement procedures
- Well purging (include a discussion of procedures to follow if three casing volumes cannot be purged)

- Monitoring and record keeping during water level measurement and well purging (include copies of record keeping logs to be used)
- Purge water disposal
- Analytical methods and required reporting limits
- Sample containers and preservatives
- Sampling
 - General sampling techniques
 - Record keeping during sampling (include copies of record keeping logs to be used)
 - QA/QC samples
- Chain of Custody
- Sample handling and transport

SECTION 2 - Monitoring Well Installation Report

The monitoring well installation report must provide the information listed below. In addition, the report must also clearly identify, describe, and justify any deviations from the approved workplan.

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions encountered during installation of the wells
- Number of monitoring wells installed and copies of County Well Construction Permits
- Topographic map showing facility location, roads, surface water bodies
- Scaled site map showing all previously existing wells, newly installed wells, surface water bodies, buildings, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details (in narrative and/or graphic form):

- On-site supervision of drilling and well installation activities
- Drilling contractor and driller's name
- Description of drilling equipment and techniques
- Equipment decontamination procedures

- Soil sampling intervals and logging methods
- Well boring log (including the following):
 - Well boring number and date drilled
 - Borehole diameter and total depth
 - Total depth of open hole (same as total depth drilled if no caving or back-grouting occurs)
 - Depth to first encountered groundwater and stabilized groundwater depth
 - Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (in narrative and/or graphic form).

- Well construction diagram, including:
 - Monitoring well number and date constructed
 - Casing and screen material, diameter, and centralizer spacing (if needed)
 - Length of well casing, and length and position of perforated interval
 - Thickness, position and composition of surface seal, sanitary seal, and sand pack
 - Type of well caps (bottom cap either screw on or secured with stainless steel screws)

D. Well Development:

- Date(s) and method of development
- How well development completion was determined
- Volume of water purged from well and method of development water disposal
- Field notes from well development should be included in report

E. Well Survey (survey the top rim of the well casing with the cap removed):

- Identify the coordinate system and datum for survey measurements
- Describe the measuring points (i.e. ground surface, top of casing, etc.)
- Present the well survey report data in a table

Include the Registered Engineer or Licensed Surveyor's report and field notes in appendix.



Central Valley Regional Water Quality Control Board

TO: Scott J. Hatton
Supervising Water Resource Control Engineer

FROM: Alexander S. Mushegan
Senior Water Resource Control Engineer
RCE 84208

Jeff Robins
Water Resource Control Engineer



DATE: 22 November 2021

APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; U.S. DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE; YOSEMITE NATIONAL PARK; WHITE WOLF WASTEWATER TREATMENT FACILITY; TUOLUMNE COUNTY

BACKGROUND INFORMATION

The United States Department of Interior, National Park Service, Yosemite National Park (National Park Service or Discharger) White Wolf Wastewater Treatment Facility (WWTF) is currently enrolled under State Water Resources Control Board's (State Water Board) Water Quality Order 97-10-DWQ, *General Waste Discharge Requirements For Discharges to Land by Small Domestic Wastewater Treatment Systems* (1997 Small Domestic General Order). Notice of Applicability (NOA) 97-10-DWQ-R5074 was issued to the National Park Service (NPS) for the WWTF on 6 June 2011. The 1997 Small Domestic General Order was superseded by State Water Board's Water Quality Order 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order).

On 30 March 2021, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (RWD) from the Discharger applying for coverage under the General Order. The RWD includes a Form 200 signed by Cicely Muldoon, Superintendent with the Yosemite National Park Service, and a

technical report, signed and stamped by Mr. Jonathan Pederson, a California-registered civil engineer (RCE 71724) with DJ&A, P.C. The March 2021 RWD proposes upgrades to the WWTF. According to the representative from the National Park Service, the proposed WWTF upgrades are scheduled to be completed this summer (2021) and, therefore, the White Wolf area would not be opened to the public this year (2021).

This memorandum provides a summary of Central Valley Water Board staff's review of the RWD and subsequent materials and the applicability of this discharge to be covered under the General Order.

DESCRIPTION OF DISCHARGE

The WWTF is located at the White Wolf Lodge and Campground in Yosemite National Park (Section 10, Township 1 South, Range 21 East, Mount Diablo Base and Meridian) on Assessor's Parcel Numbers 69-120-001 and 69-120-005. Attachment A of this NOA includes a Site Location Map. Attachment B includes a Site Plan Map. Attachment C includes a Monitoring Well/Piezometer Site Map. The WWTF receives wastewater generated from White Wolf Lodge, White Wolf Campground, and the NPS employee housing. The White Wolf Campground has 74 sites, each accommodating up to six people, with no RV hookups or dump station. White Wolf Lodge is a concessionaire-operated facility providing overnight accommodations and dining with overnight guest capacity of 112 and accommodations for up to 19 staff. NPS employee housing at White Wolf can accommodate 22 people and includes water hook-ups for three recreational vehicles (RVs) (but no facilities available to dispose of RV waste).

The White Wolf facilities were constructed primarily in the 1970s. The existing wastewater treatment system includes the collection system, a 1.7-acre stabilization pond, chlorine disinfection, and discharge to a 2.5-acre spray field. The WWTF operates during the summer months. The proposed system will replace the existing wastewater system. The WWTF will consist of a gravity-feed 5,000-gallon septic tank followed by a dual compartment tank with a 3,000-gallon septic compartment and a 1,000-gallon dosing compartment (total 4,000 gallons). The 4,000-gallon dual compartment tank will include a filter between the septic compartment and the dosing compartment, capable of removing solids greater than 1/8th inches in diameter. The WWTF will include another 5,000-gallon overflow tank connected to the 3,000-gallon septic compartment for emergency storage (e.g., in case of a power failure or if the filter between the septic compartment and the dosing compartment clogs).

From the dosing compartment of the dual compartment tank, settled and filtered effluent will be pumped uphill through approximately 700 feet of force main to a new 7,000-square foot leach field. The proposed leach field will be a mound system located in a currently forested area between White Wolf Lodge and the employee housing area. An equivalent area for a back-up leach field is also provided. The RWD states the proposed leach field site is 300 feet from the nearest seasonal stream and 1,000 feet from the water production well.

The new proposed system will be winterized at the end of each season. Each year the Discharger will start the system up once groundwater is at least 2.5 feet below the bottom of the leach field. Based on recent data from onsite piezometers, groundwater depth was deeper than 2.5 feet by the end of May/early June.

The RWD determined average wastewater flows for 2008 to 2019 by applying a ratio to the average daily water production for each year, as shown in Table 1 below. In 2013, wastewater effluent flows were measured along with the potable water supply well. Based on the 2013 data, a 0.71 ratio was determined appropriate for calculating wastewater flows based on the potable water supply well flow. Using this method, the average daily wastewater flow over the past 12 years was estimated in the RWD to be 4,844 gpd. Based on this data, the new WWTF was designed with an average flow of 7,000 gpd.

Table 1 – Potable Water Supply Flow and Wastewater Flow Estimates

Year	Potable Water Daily Average Flow (gpd)	Estimated Average Daily Wastewater Flow (gpd)
2008	7,028	4,990
2009	7,132	5,064
2010	8,793	6,243
2011	7,933	5,632
2012	8,629	6,127
2013	8,649	6,141
2014	7,137	5,068
2015	3,812	2,706
2016	6,302	4,430
2017	3,914	2,779
2018	7,768	5,515
2019	4,829	3,429

The Discharger is in the process of internally proposing a project for fiscal year 2024 to fund a project to remove the sewer main, stabilization pond, disinfection system, and spray distribution system. The existing gravity collection system upstream (south) of the central collection manhole will be retained as part of the new system. The existing wastewater system downstream (north) of the central collection manhole will remain in place, and the PVC sewer main to the stabilization pond will be capped (by cementing a PVC cap on the end where the manhole is removed) during the 2021 construction season.

POTENTIAL THREAT TO WATER QUALITY

Due to the seasonal high groundwater and shallow bedrock, the RWD proposes a mound disposal system. The mound will be a minimum of four feet high with a minimum two-foot layer of silty sand, overlain by a one-foot layer of washed rock, overlain with one foot of topsoil. The Discharger will import silty sand with a percolation rate of 10 to 15 minutes per inch.

According to the RWD, Tuolumne County's Local Agency Management Plan (LAMP) guidelines for mound systems was used to design the mound system. The RWD states since silty sand will be used for the sand mound system, an application rate of 1.0 gallons per square foot per day was used to determine the required area of the leach field. With this application rate and a design flow of 7,000 gpd, the leach field absorption area was determined to be 7,000 square feet. A replacement area of equivalent size has been identified adjacent to and south of the proposed leach field.

The mound will be divided into six zones and contain 504 linear feet of transport pipe, 126 linear feet of manifold, and 2,400 linear feet of lateral piping. Each leach field zone will consist of eight 50-foot laterals spaced at the minimum of 36 inches on-center. As a result, each zone will be comprised of 400 total linear feet of lateral piping with the entire leach field containing 2,400 linear feet of lateral piping.

The Discharger proposes groundwater monitoring wells as shown in Attachment C with the MW-1 as the up-gradient well and MW-2 and MW-3 as the down-gradient wells. The nearest up-gradient monitoring well will be used to measure the elevation difference between the lowest point of the underside of the mound and the groundwater.

The location of White Wolf Well No. 1, (which provides potable water to the White Wolf Lodge, White Wolf Campground, the NPS employee housing area, and for fire suppression) is shown in Attachment B of the NOA. The well is 232 feet deep. Water quality for the source water well for select parameters from a 2018 sample are presented in Table 2 below. In addition to the 2018 sample, seven sample results for nitrate and nitrite for the 2015 to 2019 period were provided and all results were reported as non-detect.

Table 2 - Source Water Quality

Constituent/Parameter	White Wolf Well #1
Date Sampled	8/23/2018
Electrical Conductivity (μ mhos/cm)	69
Total Dissolved Solids (mg/L)	45
Nitrate + Nitrite as N (mg/L)	ND
pH (S.U.)	7.2
Sodium (mg/L)	5.0
Calcium (mg/L)	9.2
Chloride (mg/L)	ND
Magnesium (mg/L)	1.7
Alkalinity (mg/L as CaCO ₃)	36
Sulfate (mg/L)	ND
Potassium (mg/L)	ND

The RWD included data from several site-specific soil profiles that provided details on the proposed leach field area. The area selected for the leach field generally consists of a few inches of sandy loam covering a couple feet of loamy sand and then two to six

feet of sand on top of granite bedrock. The percolation rate of the native sand was estimated at 6 minutes per inch or less.

NITROGEN LIMIT EVALUATION

The General Order requires that wastewater systems with a flow rate greater than 20,000 gallons per day be evaluated to determine if nitrogen effluent limits are required, as described in Attachment 1 of the General Order. The estimated flow rate is 7,000 gallons per day, so the nitrogen effluent limit evaluation is not required.

SALT AND NITRATE CONTROL PROGRAMS

As part of the Central Valley Salinity Alternatives for Long Term Sustainability (CVSALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting (Resolution R5-2018-0034). Pursuant to the Basin Plan amendments, the Discharger was sent a Notice to Comply on 5 January 2021 (CV-SALTS ID: 2747) with instructions and obligations for the Salt Control Program. The Salt Notice to Comply Letter requires the Discharger, by 15 July 2021, to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option) or Option 2 (Alternative Option). The Discharger submitted a Notice of Intent to Comply with the Salt Control Program on 9 July 2021 and selected Option 2 (participation in the Prioritization and Optimization Study).

For the Nitrate Control Program, the WWTF and disposal areas are located outside a prioritized basin/sub-basin. Implementation within a non-prioritized basin/sub-basin will occur as directed by the Central Valley Water Board Executive Officer.

[More information on the Salt and Nitrate Control Program](https://www.cvsalinity.org/public-info) may be found on the internet (<https://www.cvsalinity.org/public-info>).